

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D277/20 C07D417/06 A61K31/426 A61K31/427 A61P37/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, BEILSTEIN Data, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| X | MA, TONGHUI ET AL: "High-affinity Activators of Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) Chloride Conductance Identified by High-Throughput Screening" JOURNAL OF BIOLOGICAL CHEMISTRY, 277(40), 37235-37241 CODEN: JBCHA3; ISSN: 0021-9258, 2002, XP002276764 see CFTRact-04 page 37238; figure 3 | 1 |



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

4 February 2005

Date of mailing of the international search report

22/02/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------|
| A | JANUSZ J M ET AL: "New Cyclooxygenase-2/5-Lipoxygenase Inhibitors. 3. 7-tert-Butyl-2,3-dihydro-3,3-dimethylbenzofuran Derivatives as Gastrointestinal Safe Antiinflammatory and Analgesic Agents: Variations at the 5 Position" JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 41, 1998, pages 3515-3529, XP002223203 ISSN: 0022-2623 figure 5; compound 53 | 1-46 |
| A | EP 1 219 612 A (SHIONOGI & CO., LTD) 3 July 2002 (2002-07-03) Table 6, compounds I-110 to I-112; claims 1,6 | 1-46 |
| A | WO 96/20936 A (SUNKYONG INDUSTRIES CO., LTD; PARK, PYEONG-UK; PYO, SUNGSOO; LEE, KI-S) 11 July 1996 (1996-07-11) Table 2, compounds 120 to 125. page 83, lines 1-15; claims 1,2,4 | 1-46 |
| A | CARTER, PERCY H. ET AL: "Photochemically enhanced binding of small molecules to the tumor necrosis factor receptor-1 inhibits the binding of TNF-.alpha." PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA , 98(21), 11879-11884 CODEN: PNASA6; ISSN: 0027-8424, 2001, XP002316430 figure 1; table 1 | 1-46 |
| P,Y | US 2004/167192 A1 (SOLOW-CORDERO, DAVID ET AL) 26 August 2004 (2004-08-26) column 8, paragraph 112 - column 9, paragraph 112; example 2 | 1-46 |
| P,Y | WO 2004/007491 A (APPLIED RESEARCH SYSTEMS ARS HOLDING N.V; RUECKLE, THOMAS; JIANG, XULI) 22 January 2004 (2004-01-22) claim 1 | 1-46 |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/012953

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 7-17 and 37-39 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/012953

| Patent document cited in search report | | Publication date | Patent family member(s) | Publication date |
|---|----|---------------------|--|--|
| EP 1219612 | A | 03-07-2002 | AU 6877300 A CA 2384757 A1 EP 1219612 A1 US 6818640 B1 CN 1387519 T WO 0119807 A1 | 17-04-2001 22-03-2001 03-07-2002 16-11-2004 25-12-2002 22-03-2001 |
| WO 9620936 | A | 11-07-1996 | AU 4317396 A CA 2184174 A1 CN 1142227 A EP 0748317 A1 JP 9503792 T WO 9620936 A1 | 24-07-1996 11-07-1996 05-02-1997 18-12-1996 15-04-1997 11-07-1996 |
| US 2004167192 | A1 | 26-08-2004 | NONE | |
| WO 2004007491 | A | 22-01-2004 | US 2004092561 A1 WO 2004007491 A1 | 13-05-2004 22-01-2004 |